

State of Hawaii
DEPARTMENT OF LAND AND NATURAL RESOURCES
Division of Aquatic Resources
Honolulu, Hawaii 96813

July 8, 2011

Board of Land
and Natural Resources
Honolulu, Hawaii

Request for Authorization and Approval to Issue a Papahānaumokuākea Marine National Monument Education Permit to Judith Lemus, University of Hawaii, Hawaii Institute of Marine Biology, for Access to State Waters to Document Fieldwork and Conduct Researcher Interviews

The Division of Aquatic Resources (DAR) hereby submits a request for your authorization and approval for issuance of a Papahānaumokuākea Marine National Monument education permit to Dr. Judith Lemus, Specialist, University of Hawaii, Hawaii Institute of Marine Biology, pursuant to § 187A-6, Hawaii Revised Statutes (HRS), chapter 13-60.5, Hawaii Administrative Rules (HAR), and all other applicable laws and regulations.

The education permit, as described below, would allow entry and observational activities to occur in Papahānaumokuākea Marine National Monument (Monument), including the NWHI State Marine Refuge and the waters (0-3 nautical miles) surrounding the following sites:

- Nihoa Island
- Necker Island (Mokumanamana)
- French Frigate Shoals
- Gardner Pinnacles
- Maro Reef
- Laysan Island
- Lisianski Island, Neva Shoal
- Pearl and Hermes Atoll
- Kure Atoll

The activities covered under this permit would occur between July 15, 2011 and October 31, 2011.

INTENDED ACTIVITIES:

The applicant proposes to conduct interviews with research scientists during the course of their fieldwork, and film (still photography and video) both the natural resources under study and the scientists conducting the research.

The purpose of these activities is to develop the multimedia resources needed for a distance learning course offered to University of Hawai'i undergraduates. It would also provide needed visual media for existing outreach and education programs such as the marine exchange program Ecosystem Penpals, and updated photographs for important research reports and other related

materials. Lastly, the proposed activities would update the existing NWHI Research Partnership photo and video catalogue, a resource currently used by several outreach programs.

To carry out these activities, photos and video would be taken aboard the ship during preparation of research activities. Video interviews with scientists would also be conducted during this time. In addition, photos and video would be taken in the field to capture images of research activities and subjects, and to continue interview elements. These may be taken either on land, by snorkeling, or SCUBA. Any land access by the applicant would require a Monument-approved escort.

The activities proposed by the applicant directly support the Monument Management Plan's priority management needs through action plan 3.5.2 – Constituency Building and Outreach.

The activities described above may require the following regulated activities to occur in State waters:

☒ Swimming, snorkeling, or closed or open circuit SCUBA diving within any Special Preservation Area or Midway Atoll Special Management Area

REVIEW PROCESS:

The permit application was sent out for review and comment to the following scientific and cultural entities: Hawaii Division of Aquatic Resources, Hawaii Division of Forestry and Wildlife, Papahānaumokuākea Marine National Monument (NOAA/NOS), NOAA Pacific Islands Regional Office (NOAA-PIRO), United States Fish and Wildlife Service Hawaiian and Pacific Islands National Wildlife Refuge Complex Office, and the Office of Hawaiian Affairs (OHA). In addition, the permit application has been posted on the Monument Web site since March 10th, giving the public an opportunity to comment. The application was posted within 40 days of its receipt, in accordance with the Monument's Public Notification Policy.

Comments received from the scientific community are summarized as follows:

Scientific reviews support the acceptance of this application.

The following questions were both raised and addressed:

- 1) *How will the Principal Investigators (PIs) "connect" with students and educators while at sea? Will this be over e-mail, Skype, blog, or other? Given the limited bandwidth aboard the ship, video conferencing technologies may not be available.*

The Applicant is proposing to connect with students via e-mail and satellite phone. She is anticipating making pre-arrangements with Hawaii teachers who will work with students to email questions daily to the researchers who will respond via email and at one set interview time via phone. In addition, the Applicant is proposing to send photographs periodically to these participating teachers.

- 2) *What opportunity will PMNM education staff have to review and provide feedback on the course content?*

Both PI's, Dr. Lemus and Dr. Wiener have worked closely in the past with PMNM education staff including Andy Collins and Matt Limtiaco. The Applicant is proposing to update PMNM education staff of program progress and outcomes, and provide them with access to content. As a university credit course, decisions about course content ultimately lie with the department and instructor, but PMNM education staff would be welcome to provide feedback on the overall course outline.

3) Will evaluation components for the course be considered? If so, what types of evaluation criteria would be built into the course or materials?

Yes. The Applicant expresses that student feedback and formalized course evaluations are always included. Assessment measures are a required component of university courses, and would be developed in conjunction with the course proposal. Specific evaluation criteria would include assessments of mastery of course content, participation, thoroughness, and synthesis. Student evaluations of courses and instructors would also be included. Typical evaluation elements include: overall course value; instructor preparedness; instructor effectiveness; effectiveness and value of course readings, resources and media; perceived (self-assessed) learning; and others related to the online experience.

4) The application references cataloging of images. Will metadata and logging information be included for images and video to make them more widely accessible and usable

The Applicant is proposing to catalog images according to date, location and subject. The PIs are currently not familiar with the system that PMNM uses for logging and attaching metadata to image files, but express eagerness to comply with any protocols provided by the Monument staff.

Comments received from the Native Hawaiian community are summarized as follows:

Cultural reviews support the acceptance of this application. No concerns were raised.

Comments received from the public are summarized as follows:

No comments were received from the public on this application.

Additional reviews and permit history:

Are there other relevant/necessary permits or environmental reviews that have or will be issued with regard to this project? (e.g. MMPA, ESA, EA) Yes ☒ No ☐

If so, please list or explain:

- The proposed activities are in compliance with the National Environmental Policy Act.
- The Department has made an exemption determination for this permit in accordance chapter 343, HRS, and Chapter 11-200, HAR. See Attachment ("DECLARATION OF EXEMPTION FROM THE PREPARATION OF AN ENVIRONMENTAL ASSESSMENT UNDER THE AUTHORITY OF CHAPTER 343, HRS AND CHAPTER 11-200 HAR, FOR PAPAHA NAUMOKU AKEA MARINE NATIONAL MONUMENT EDUCATION PERMIT TO DR. JUDITH LEMUS, HAWAII INSTITUTE OF MARINE BIOLOGY, FOR ACCESS TO STATE WATERS

TO DOCUMENT FIELDWORK AND CONDUCT RESEARCHER INTERVIEWS UNDER PERMIT
PMNM-2011-030")

Has Applicant been granted a permit from the State in the past? Yes ☐ No ☒
If so, please summarize past permits:

Have there been any a) violations: Yes ☐ No ☒
b) Late/incomplete post-activity reports: Yes ☐ No ☒

Are there any other relevant concerns from previous permits? Yes ☐ No ☒

STAFF OPINION:

DAR staff is of the opinion that Applicant has properly demonstrated valid justifications for her application and should be allowed to enter the NWHI State waters and to conduct the activities therein as specified in the application with certain special instructions and conditions, which are in addition to the Papahānaumokuākea Marine National Monument Education Permit General Conditions. All suggested special conditions have been vetted through the legal counsel of the Co-Trustee agencies (see Recommendation section).

MONUMENT MANAGEMENT BOARD OPINION:

The MMB is of the opinion that the Applicant has met the findings of Presidential Proclamation 8031 and this activity may be conducted subject to completion of all compliance requirements. The MMB concurs with the special conditions recommended by DAR staff.

RECOMMENDATION:

Based on the attached proposed declaration of exemption prepared by the department after consultation with and advice of those having jurisdiction and expertise for the proposed permit actions:

1. That the Board declare that the actions which are anticipated to be undertaken under this permit will have little or no significant effect on the environment and is therefore exempt from the preparation of an environmental assessment.
2. Upon the finding and adoption of the department's analysis by the Board, that the Board delegate and authorize the Chairperson to sign the declaration of exemption for purposes of recordkeeping requirements of chapter 343, HRS, and chapter 11-200, HAR.
3. That the Board authorize and approve an education permit to Dr. Judith Lemus, Hawaii Institute of Marine Biology, with the following special conditions:
 - a. To prevent introduction of disease or the unintended transport of live organisms, the permittee must comply with the disease and transport protocols attached to this permit.

- b. Tenders and small vessels must be equipped with engines that meet EPA emissions requirements.
- c. Refueling of tenders and all small vessels must be done at the support ships and outside the confines of lagoons or near-shore waters in the State Marine Refuge
- d. No fishing is allowed in State Waters except as authorized under State law for subsistence, traditional and customary practices by Native Hawaiians.

Respectfully submitted,


SR Administrator

APPROVED FOR SUBMITTAL



William J. Aila, Jr.
Chairperson

Papahānaumokuākea Marine National Monument
EDUCATION Permit Application

NOTE: *This Permit Application (and associated Instructions) are to propose activities to be conducted in the Papahānaumokuākea Marine National Monument. The Co-Trustees are required to determine that issuing the requested permit is compatible with the findings of Presidential Proclamation 8031. Within this Application, provide all information that you believe will assist the Co-Trustees in determining how your proposed activities are compatible with the conservation and management of the natural, historic, and cultural resources of the Papahānaumokuākea Marine National Monument (Monument).*

ADDITIONAL IMPORTANT INFORMATION:

- Any or all of the information within this application may be posted to the Monument website informing the public on projects proposed to occur in the Monument.
- In addition to the permit application, the Applicant must either download the Monument Compliance Information Sheet from the Monument website OR request a hard copy from the Monument Permit Coordinator (contact information below). The Monument Compliance Information Sheet must be submitted to the Monument Permit Coordinator after initial application consultation.
- Issuance of a Monument permit is dependent upon the completion and review of the application and Compliance Information Sheet.

INCOMPLETE APPLICATIONS WILL NOT BE CONSIDERED

Send Permit Applications to:

Papahānaumokuākea Marine National Monument Permit Coordinator
6600 Kalaniana'ole Hwy. # 300

Honolulu, HI 96825

nwhipermit@noaa.gov

PHONE: (808) 397-2660 FAX: (808) 397-2662

SUBMITTAL VIA ELECTRONIC MAIL IS PREFERRED BUT NOT REQUIRED. FOR ADDITIONAL SUBMITTAL INSTRUCTIONS, SEE THE LAST PAGE.

Papahānaumokuākea Marine National Monument Permit Application Cover Sheet

This Permit Application Cover Sheet is intended to provide summary information and status to the public on permit applications for activities proposed to be conducted in the Papahānaumokuākea Marine National Monument. While a permit application has been received, it has not been fully reviewed nor approved by the Monument Management Board to date. The Monument permit process also ensures that all environmental reviews are conducted prior to the issuance of a Monument permit.

Summary Information

Applicant Name: Judith Lemus

Affiliation: Hawaii Institute of Marine Biology

Permit Category: Education

Proposed Activity Dates: July 23 - Aug. 20, 2011

Proposed Method of Entry (Vessel/Plane): Hi'ialakai RV

Proposed Locations: Nihoa/Necker; French Frigate Shoals; Gardner; Maro; Laysan; Midway

Estimated number of individuals (including Applicant) to be covered under this permit: 2

Estimated number of days in the Monument: 26

Description of proposed activities: (complete these sentences):

a.) The proposed activity would...
develop the multimedia resources needed for a distance learning course offered to University of Hawai'i undergraduates. It would also provide needed visual media for existing outreach and education programs such as the marine exchange program Ecosystem Penpals, and updated photographs for important research reports and other related materials.

b.) To accomplish this activity we would
conduct interviews with research scientists during the course of their field work, and film (still photography and video) both the natural resources under study and the scientists conducting the studies. Additionally, we intend to link to several schools offering opportunities for direct interactions between students and scientists working in the Monument.

c.) This activity would help the Monument by ...
providing a much broader spectrum of the academic community (namely undergraduate students) an opportunity to learn about and better understand the NWHI and Papahānaumokuākea. The online course would provide a window into Papahānaumokuākea Marine National Monument for future scientists in Hawaii who might not otherwise have an

opportunity to experience the science of this rich and important ecosystem, enhancing the conservation and education capacity of the Monument. This fulfills the direct mandate of the Monument to bring the place to the people. This activity would also build upon existing and successfully proved outreach programs and further develop materials for education at all levels included informal outreach and formal K-12 education programs.

Other information or background: The principals on this permit both have extensive experience developing marine science curricula and university-level courses. Dr. Lemus is a trained marine biologist and has taught marine biology courses at both the undergraduate and graduate levels. Carlie Wiener also has had extensive experience working with the management of Papahānaumokuākea as the outreach and research specialist for the HIMB partnership. At the tenth anniversary of the designation of the Northwest Hawaiian Islands Coral Reef Ecosystem Reserve, the managers stated that it is time to share the wonder of the place and the exemplary scientific research that serves as the model for effective science-management collaboration. The proposed course, "Science and Mangement of the Northwest Hawaiian Islands" would engage students in a virtual exploration of the islands, their flora and fauna, and the science that is being used to better understand and manage the ecosystem. Potential course topics include: Coral Reef Habitats; Comparison of MHI and NWHI Ecosystems; Marine Ecology Field Techniques; Population Genetics; Ecological Genomics; Overview of Marine Management History and Strategies; Papahānaumokuākea Management Objectives and Strategies; Ecosystem-based Management; What can the Science Tell Us?; Collaborations among Scientists, Cultural Practioners and Managers; Applications and Extrapolations to other Pacific MPAs. This class will also tie into the already existing Papahānaumokuākea community education course "Moku o Lo'e: The Best Kept Secret in Kane'ohe Bay". This course has been running for eight semesters and has shared the science and beauty of the NWHI with over 200 participants. The course will continue to share the unique research coming out of the Monument with the community, but after eight semesters is in need of course revision and fresh material. Having the ability to document new research, obtain photo and video footage and gather collective experiences will help to formulate new curriculum not only for the two above mentioned classes but for other outreach and education programs as well.

Section A - Applicant Information

1. Applicant

Name (last, first, middle initial): Lemus, Judith, D.

Title: Specialist

1a. Intended field Principal Investigator (See instructions for more information):
Judith Lemus, Ph.D. (CV attached)

2. Mailing address (street/P.O. box, city, state, country, zip):

[REDACTED]

Phone:

[REDACTED]

Fax:

[REDACTED]

Email:

[REDACTED]

For students, major professor's name, telephone and email address:

3. Affiliation (institution/agency/organization directly related to the proposed project):
University of Hawaii, Hawai'i Institute of Marine Biology

4. Additional persons to be covered by permit. List all personnel roles and names (if known at time of application) here (e.g. John Doe, Teacher; Jane Doe, Videographer):
Carlie Wiener, education specialist (CV attached)

Section B: Project Information

5a. Project location(s):

<input checked="" type="checkbox"/> Nihoa Island	<input checked="" type="checkbox"/> Land-based	<input checked="" type="checkbox"/> Shallow water	<input type="checkbox"/> Deep water
<input checked="" type="checkbox"/> Necker Island (Mokumanamana)	<input checked="" type="checkbox"/> Land-based	<input checked="" type="checkbox"/> Shallow water	<input type="checkbox"/> Deep water
<input checked="" type="checkbox"/> French Frigate Shoals	<input checked="" type="checkbox"/> Land-based	<input checked="" type="checkbox"/> Shallow water	<input type="checkbox"/> Deep water
<input checked="" type="checkbox"/> Gardner Pinnacles	<input checked="" type="checkbox"/> Land-based	<input checked="" type="checkbox"/> Shallow water	<input type="checkbox"/> Deep water
<input checked="" type="checkbox"/> Maro Reef			
<input checked="" type="checkbox"/> Laysan Island	<input checked="" type="checkbox"/> Land-based	<input checked="" type="checkbox"/> Shallow water	<input type="checkbox"/> Deep water
<input checked="" type="checkbox"/> Lisianski Island, Neva Shoal	<input checked="" type="checkbox"/> Land-based	<input checked="" type="checkbox"/> Shallow water	<input type="checkbox"/> Deep water
<input checked="" type="checkbox"/> Pearl and Hermes Atoll	<input checked="" type="checkbox"/> Land-based	<input checked="" type="checkbox"/> Shallow water	<input type="checkbox"/> Deep water
<input checked="" type="checkbox"/> Midway Atoll	<input checked="" type="checkbox"/> Land-based	<input checked="" type="checkbox"/> Shallow water	<input type="checkbox"/> Deep water
<input checked="" type="checkbox"/> Kure Atoll	<input checked="" type="checkbox"/> Land-based	<input checked="" type="checkbox"/> Shallow water	<input type="checkbox"/> Deep water
<input type="checkbox"/> Other			

Ocean Based

NOTE: There is a fee schedule for people visiting Midway Atoll National Wildlife Refuge via vessel and aircraft.

Location Description:

5b. Check all applicable regulated activities proposed to be conducted in the Monument:

- ☐ Removing, moving, taking, harvesting, possessing, injuring, disturbing, or damaging any living or nonliving Monument resource
- ☐ Drilling into, dredging, or otherwise altering the submerged lands other than by anchoring a vessel; or constructing, placing, or abandoning any structure, material, or other matter on the submerged lands
- ☐ Anchoring a vessel
- ☐ Deserting a vessel aground, at anchor, or adrift
- ☐ Discharging or depositing any material or matter into the Monument
- ☒ Touching coral, living or dead
- ☐ Possessing fishing gear except when stowed and not available for immediate use during passage without interruption through the Monument
- ☐ Attracting any living Monument resource
- ☐ Sustenance fishing (Federal waters only, outside of Special Preservation Areas, Ecological Reserves and Special Management Areas)
- ☐ Subsistence fishing (State waters only)
- ☒ Swimming, snorkeling, or closed or open circuit SCUBA diving within any Special Preservation Area or Midway Atoll Special Management Area

6 Purpose/Need/Scope *State purpose of proposed activities:*

The purpose is to provide a large number of undergraduate science students an opportunity to learn about the the natural history, and the science and management activities in the NWHI through a visually rich virtual education experience. The distance learning course will initially be offered through the University of Hawai'i in the fall of 2012, and bi-annually thereafter. The project will also update the existing NWHI Research Partnership photo and video catalogue that will be used for several outreach programs which focus on marine science and the Monument with local students around the state. These programs not only target our local students but others across the United States and Internationally. Using the NWHI as a teaching tool we are able to instill a conservation ethic towards the marine environment across numerous age ranges and cultures. Although we have had six years of research expeditions in the Monument, our visual media resources are limited because scientists cannot take the time to collect images while focuses on their extremely busy research agendas. Outreach specialists can obtain engaging footage without disrupting the research schedule on the cruise. Our education experience also allows us to understand the type of video and photo needed to produce dynamic reports and education products that will engage students and community.

7. Answer the Findings below by providing information that you believe will assist the Co-Trustees in determining how your proposed activities are compatible with the conservation and management of the natural, historic, and cultural resources of the Monument:

The Findings are as follows:

a. How can the activity be conducted with adequate safeguards for the cultural, natural and historic resources and ecological integrity of the Monument?

The nature of the activities of this project are purely observational and non-invasive. While benthic organisms (including dead coral, but not live coral) may be picked up for photography, they will be replaced in the same location. Working as a team, we will use the utmost care while photographing natural resources, with one person being assigned camera duties and the other serving as a tender to insure there is no damage to those resources. We recognize how special Papahānaumokuākea is and are committed to only using non invasive techniques such as photo and video to bring this special place to the public and to enhance our education programs.

b. How will the activity be conducted in a manner compatible with the management direction of this proclamation, considering the extent to which the conduct of the activity may diminish or enhance Monument cultural, natural and historic resources, qualities, and ecological integrity, any indirect, secondary, or cumulative effects of the activity, and the duration of such effects? The activities are entirely compatible with the management direction in that they will not diminish the resources in any way, and in fact will enhance the management capacity of the Monument by providing virtual access and education to Hawaii college students and the general public. This activity will also aid in enhancing public knowledge and understanding about the Papahānaumokuākea Marine National Monument and the Northwestern Hawaiian Islands thorough outreach materials. Fostering personal connections to the Monument through virtual experiences

will directly support the Monument's aim of bringing the "place to the people", and help engender an ethic of environmental stewardship.

c. Is there a practicable alternative to conducting the activity within the Monument? If not, explain why your activities must be conducted in the Monument.

The principles will work with researchers who have previously worked in the Monument to obtain additional photographic and videographic footage for use in the course, and will also request access to the large Monument image database. But to provide a dynamic and engaging learning experience we feel it is important to interview and photograph scientists as they conduct their work in the field (and on the ship). Narrated walking and snorkeling/diving tours of some islands will also significantly enrich the course content. Additionally, we will be connecting with students in live time which requires a presence on the ship not only to demonstrate the importance of the science but to connect students to future marine science and conservation careers. The images we are seeking require "in the moment" science shots observing researchers in the field. Previous photos in the database are mostly scenery shots and do not capture the most up to date research and new projects.

d. How does the end value of the activity outweigh its adverse impacts on Monument cultural, natural and historic resources, qualities, and ecological integrity?

The end value of the proposed activity will be only to educate future scientists and resource managers about the unique ecosystem of the NWHI and the science that helps support its management. Through this type of pre-career training in scientific and management processes and techniques, the cultural, natural and historic resources, and ecological integrity of the NWHI, we can help to broaden the impact of the conservation objectives of the Monument. An added value will be enhanced public outreach capacity with visually engaging resources.

e. Explain how the duration of the activity is no longer than necessary to achieve its stated purpose.

The activities will last for the duration of the scheduled RAMP cruise on July 23 - Aug. 20, 2011

f. Provide information demonstrating that you are qualified to conduct and complete the activity and mitigate any potential impacts resulting from its conduct.

Dr. Lemus is an experienced marine biologist and science education specialist that has utilized multimedia resources (including photos, video, and web-based products) in a variety of ocean science education programs, including undergraduate and graduate courses, teacher professional development, and high school student field courses. Example courses/programs include:

Communicating Ocean Sciences (OEST 696)

UH Manoa Ocean and Earth Sciences and Technology, Co-Instructor

The Role of Marine Protected Areas in Ecosystem Based Management (OEST 699)

UH Manoa Ocean and Earth Sciences and Technology, Creator and Lead Instructor

Communicating Ocean Sciences to Informal Audiences (BISC 599)

University of Southern California Biological Sciences, Lead Instructor

Oceanography of the Southern California Bight (CORE 195)

USC Summer Seminar, Creator and Lead Instructor

Fundamentals of Biology (Biology 3)

Santa Monica College, Lead Instructor
Field Program in Galapagos: Ecology and Evolution (CORE 195)
USC Summer Seminar, Creator and Lead Instructor
Oceanography of the Southern California Bight (CORE 195)
USC Summer Seminar, Creator and Lead Instructor
Science Teacher Professional Development - online and in-person workshops
USC Center for Ocean Sciences Education Excellence, Designer and Instructor

Carlie Wiener is also an experienced education specialist who has worked on the subject of the Northwestern Hawaiian Islands since 2006. She is involved in several outreach projects related to the NWHI including the Ocean FEST (Families Exploring Science Together) state-wide inter-generational program and Ecosystem PenPals, a natural and cultural Pacific-wide exchange program. She also develops annual reports and assorted outreach materials including websites, postcards, newsletters and education curriculum related to NWHI and science activities.

g. Provide information demonstrating that you have adequate financial resources available to conduct and complete the activity and mitigate any potential impacts resulting from its conduct. This activity will require minimal equipment and resources other than photographic and recording equipment, which will be supplied by the principle investigators. Berths on the Hi'ialakai are provided as part of the HIMB NWHI Research Partnership with NOAA. University of Hawai'i is self-insured and the activities of both principles are covered under this policy.

h. Explain how your methods and procedures are appropriate to achieve the proposed activity's goals in relation to their impacts to Monument cultural, natural and historic resources, qualities, and ecological integrity.

As stated above, the activities will be purely observational and no cultural, natural or historic resources will be disturbed. Images and interviews of scientists conducting research are essential to helping university science students understand science designed to inform ecosystem-based management efforts. Furthermore, the activities and products will help to educate a broader audience about science efforts that support the ecological integrity of the Monument with emphasis on our local students in Hawaii.

i. Has your vessel has been outfitted with a mobile transceiver unit approved by OLE and complies with the requirements of Presidential Proclamation 8031?
NA

j. Demonstrate that there are no other factors that would make the issuance of a permit for the activity inappropriate.
NA

8. Procedures/Methods:

Photos and video will be taken aboard the ship during preparation of research activities. Video interviews with scientists will also be conducted during this time. Photos and video will also be taken in the field to capture images of research activities and subjects, and to continue interview elements. These may be taken either on land, by snorkeling, or SCUBA. Dr. Lemus has advanced open water and rescue diver certifications, as well as underwater photography certification. Ms. Wiener has her advanced open water, scientific diver, and underwater photography certification. Communication with teachers and school programs may also be carried out throughout the trip, and continue upon returning from the Monument. Various activities and programs may also be developed from the information and image collections gathered on this trip. Although both principles have lapsed scientific diver certifications, we plan to undergo reinstatement before the cruise. If for some reason this is not possible, we will conduct our activities via land, boat, and snorkel.

NOTE: If land or marine archeological activities are involved, contact the Monument Permit Coordinator at the address on the general application form before proceeding, as a customized application will be needed. For more information, contact the Monument office on the first page of this application.

9a. Collection of specimens - collecting activities (would apply to any activity): organisms or objects (List of species, if applicable, attach additional sheets if necessary):

None

Common name:

Scientific name:

& size of specimens:

Collection location:

☐ Whole Organism ☐ Partial Organism

9b. What will be done with the specimens after the project has ended?

9c. Will the organisms be kept alive after collection? ☐ Yes ☐ No

• Specific site/location:

• Is it an open or closed system? ☐ Open ☐ Closed

- Is there an outfall? ☐ Yes ☐ No
- Will these organisms be housed with other organisms? If so, what are the other organisms?
- Will organisms be released?

10. If applicable, how will the collected samples be transported out of the Monument?

NA

11. Is your proposed activity based on a State Department of Education Standards Based Curriculum? If so, describe:

NA

12. If applicable, describe how you are collaborating with others in any way to reduce duplicative activities in the Monument or elsewhere?

We will be working with scientists that have previously worked in the Monument to obtain additional photographic and video footage. This approach has not been completed by others in the past few years and a gap in the imagery reflecting new research and programs exists. This work will be shared with other education programs both in Hawaii and abroad for use in several outreach programs including Ocean FEST, Ecosystem PenPals, The HIMB Community Education Program, the proposed UH NWHI course, Windward Community College continuing education course, amongst other programs.

13. What materials, products or deliverables will be developed as a result of your proposed activity? Provide a time line for write-up and publication of information or production of educational materials:

This activity will create a visual database of photographic and video images of science being conducted in the Monument. It will also add to the existing database of images of the natural resources in the Monument. Video interview vignettes of scientists will help develop educational stories of what scientists do and how their work can help to support management objectives. Multimedia footage will be used to develop an undergraduate distance learning (online) course offered through UH in Fall 2012. It will also be integrated into the existing continuing education course at Windward Community College. Public outreach and education materials generated at HIMB will also be much enhanced with images of scientists and the science being conducted in PMNM. Photos and video will also be made available to the Monument. Direct application to new activities and expansion of existing programs like the Ocean FEST and Ecosystem Penpals program will also be included.

14. List all specialized gear and materials to be used in this activity:

Underwater camera; underwater video camera; underwater full face mask with microphone

15. List all Hazardous Materials you propose to take to and use within the Monument:
Rechargeable batteries for cameras

16. Describe any fixed installations and instrumentation proposed to be set in the Monument:
None

17. List all Applicants' publications/references directly related to the proposed project:
Lemus, J. (2010) Applied Ocean Studies BAS Degree Program; Two-year upper division curriculum at UH Maui College

Lemus, J. and Duncan, K. (2009) Communicating Ocean Sciences; Graduate course at UH Manoa.

Lemus, J. (2008) Ecosystem-based Management; Graduate special topics seminar at UH Manoa.

Lemus, J. (2004-2007) Centers for Ocean Sciences Education Excellence (COSEE-West) Online Teacher Professional Development workshops.

Lemus, J. D., A. Read, A. Knight, H. Havens, J. Mooney, S. Teck, E. Franklin, M. Chow, J. Lindholm, A. Rosenberg, L. Abramson, B. Barr, C. Benson, E. Brody, K. Carvalho, C. Combest-Friedman, J. Dupont, K. Emery, D. Fluharty, B. Halpern, J. Johnson, S. Katz, B. Keller, J. Kerr, E. Klein, E.S. Rutherford, R. Warner, R. Pavia (in prep). Marine Ecosystem-based Management Course Guide. Journal of Geoscience Education.

Kittinger, J.N., D.J. Skillings, K.K. Carvalho, L.L.N. Reeve, M. Hutchinson, J. O'Malley, K. Cullison, J. Shackeroff, M. Chow, and J. Lemus (2009). Reconciling Ecosystem-Based Management and Focal Resource Conservation in the Papahānaumokuākea Marine National Monument. Marine Sanctuaries Conservation Series ONMS-09-04. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Office of National Marine Sanctuaries, Silver Spring, MD.

Wiener, C. (2008-2010) Secrets of Moku o Loe; Continuing education course at UH Windward Community College

Wiener, C.S., B. C. Bruno, J. Fooley. (2011). Ocean investigators: Learning to monitor coral reefs using quadrats. Green Teacher Special Issue: Marine Education. (In press).

Wiener, C.S., M.A. Rivera., R.J. Toonen., et al. (2010). Creating Effective Partnerships in Ecosystem Based Management: A Culture of Science and Management. Journal of Marine Biology.

Wiener, C.S., & M.A. Rivera. (2010). Journeying through the Hawaiian Archipelago: Using marine science and place-based learning at the Hawai'i Institute of Marine Biology. Current: The Journal of Marine Education 26 (4).

Bruno, B. C. & C.S. Wiener. (2010). Ocean FEST: Families Exploring Science Together. *Journal of Geoscience Education*: 14 pages.

Wiener, C.S. & M.O. Lammers. (2010). Sound and observation: Listening for clues using real life acoustic recorders. *American Biology Teacher* 72 (6), 365-368.

With knowledge of the penalties for false or incomplete statements, as provided by 18 U.S.C. 1001, and for perjury, as provided by 18 U.S.C. 1621, I hereby certify to the best of my abilities under penalty of perjury of that the information I have provided on this application form is true and correct. I agree that the Co-Trustees may post this application in its entirety on the Internet. I understand that the Co-Trustees will consider deleting all information that I have identified as "confidential" prior to posting the application.

Signature

Date

SEND ONE SIGNED APPLICATION VIA MAIL TO THE MONUMENT OFFICE BELOW:

Papahānaumokuākea Marine National Monument Permit Coordinator
6600 Kalaniana'ole Hwy. # 300
Honolulu, HI 96825
FAX: (808) 397-2662

DID YOU INCLUDE THESE?

- ☒ Applicant CV/Resume/Biography
- ☒ Intended field Principal Investigator CV/Resume/Biography
- ☒ Electronic and Hard Copy of Application with Signature
- ☐ Statement of information you wish to be kept confidential
- ☐ Material Safety Data Sheets for Hazardous Materials

Papahānaumokuākea Marine National Monument Compliance Information Sheet

1. Updated list of personnel to be covered by permit. List all personnel names and their roles here (e.g. John Doe, Diver; Jane Doe, Field Technician, Jerry Doe, Medical Assistant): Judith Lemus, education specialist; Carlie Weiner, education specialist

2. Specific Site Location(s): (Attach copies of specific collection locations):

Specific sites on each island to be determined by cruise schedule.

Nihoa Island

Necker Island

French Frigate Shoals

Gardner Pinnacles

Maro Reef

Laysan Island

Lisianski Island/Neva Shoal

Pearl and Hermes Atoll

Midway Atoll

Kure Atoll

3. Other permits (list and attach documentation of all other related Federal or State permits):

3a. For each of the permits listed, identify any permit violations or any permit that was suspended, amended, modified or revoked for cause. Explain the circumstances surrounding the violation or permit suspension, amendment, modification or revocation.

4. Funding sources (Attach copies of your budget, specific to proposed activities under this permit and include funding sources. See instructions for more information): This project is supported by the MOA between HIMB and PMNM

5. Time frame:

Activity start: September 2011

Activity completion: August 2013

Dates actively inside the Monument:

From: September 5, 2011
To: September 29, 2011

Describe any limiting factors in declaring specific dates of the proposed activity at the time of application: NOAA ship schedule is subject to change.

Personnel schedule in the Monument: All personnel will be aboard the Hiialakai for the entire trip and will be subject to the cruise schedule.

6. Indicate (with attached documentation) what insurance policies, bonding coverage, and/or financial resources are in place to pay for or reimburse the Monument trustees for the necessary search and rescue, evacuation, and/or removal of any or all persons covered by the permit from the Monument: The Hiialakai is a self insured federal vessel and all personnel involved with this project are insured by personal health insurance, workman's comp insurance and Diver's Alert Network (DAN).

7. Check the appropriate box to indicate how personnel will enter the Monument:

- ☒ Vessel
☐ Aircraft

Provide Vessel and Aircraft information: NOAA Hiialakai

8. The certifications/inspections (below) must be completed prior to departure for vessels (and associated tenders) entering the Monument. Fill in scheduled date (attach documentation):

- ☐ Rodent free, Date:
☐ Tender vessel, Date:
☐ Ballast water, Date:
☐ Gear/equipment, Date:
☐ Hull inspection, Date:

9. Vessel information (NOTE: if you are traveling aboard a National Oceanic and Atmospheric Administration vessel, skip this question):

Vessel name:

Vessel owner:

Captain's name:

IMO#:

Vessel ID#:

Flag:

Vessel type:

Call sign:

Embarkation port:

Last port vessel will have been at prior to this embarkation:

Length:

Gross tonnage:

Total ballast water capacity volume (m3):

Total number of ballast water tanks on ship:

Total fuel capacity:

Total number of fuel tanks on ship:

Marine Sanitation Device:

Type:

Explain in detail how you will comply with the regulations regarding discharge in the Monument. Describe in detail. If applicable, attach schematics of the vessel's discharge and treatment systems:

Other fuel/hazardous materials to be carried on board and amounts:

Provide proof of a National Oceanic and Atmospheric Administration (NOAA) Office of Law Enforcement-approved Vessel Monitoring System (VMS). Provide the name and contact information of the contractor responsible for installing the VMS system. Also describe VMS unit name and type:

VMS Email:

Inmarsat ID#:

* Individuals **MUST ENSURE** that a type-approved VMS unit is installed and that its automatic position reports are being properly received by the NOAA OLE system prior to the issuance of a permit. To make sure your VMS is properly configured for the NOAA OLE system, please contact NOAA OLE at (808) 203-2503 or (808) 203-2500.

PERMITS WILL NOT BE ISSUED TO INDIVIDUALS ENTERING THE MONUMENT VIA VESSEL UNTIL NOAA OLE HAS CONTACTED THE MONUMENT PERMIT COORDINATOR WITH A 'POSITIVE CHECK' READING.

10. Tender information:

On what workboats (tenders) will personnel, gear and materials be transported within the Monument? List the number of tenders/skiffs aboard and specific types of motors:

Additional Information for Land Based Operations

11. Proposed movement of personnel, gear, materials, and, if applicable, samples:

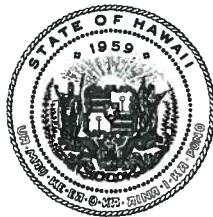
12. Room and board requirements on island:

13. Work space needs: Desk or bench for laptop computer, rinsing and maintenance of photographic equipment, and charging batteries.

DID YOU INCLUDE THESE?

- ☐ Map(s) or GPS point(s) of Project Location(s), if applicable
- ☐ Funding Proposal(s)
- ☐ Funding and Award Documentation, if already received
- ☐ Documentation of Insurance, if already received
- ☐ Documentation of Inspections
- ☐ Documentation of all required Federal and State Permits or applications for permits

NEIL ABERCROMBIE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF AQUATIC RESOURCES
1151 PUNCHBOWL STREET, ROOM 330
HONOLULU, HAWAII 96813

July 8, 2011

WILLIAM J. AILA, JR.
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT


GUY KAULUKUKUI
FIRST DEPUTY

WILLIAM M. TAM
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

TO: Division of Aquatic Resources File

THROUGH: William J. Aila, Jr., Chairperson

FROM:  Francis Oishi
Division of Aquatic Resources

DECLARATION OF EXEMPTION FROM THE PREPARATION OF AN ENVIRONMENTAL ASSESSMENT
UNDER THE AUTHORITY OF CHAPTER 343, HRS AND CHAPTER 11-200 HAR, FOR
PAPAHĀNAUMOKUĀKEA MARINE NATIONAL MONUMENT EDUCATION PERMIT TO DR. JUDITH
LEMUS, UNIVERSITY OF HAWAII, HAWAII INSTITUTE OF MARINE BIOLOGY, FOR ACCESS TO STATE
WATERS TO DOCUMENT FIELDWORK AND CONDUCT RESEARCHER INTERVIEWS
UNDER PERMIT PMNM-2011-030

The following permitted activities are found to be exempted from preparation of an environmental assessment under the authority of Chapter 343, HRS and Chapter 11-200, HAR:

Project Title:

Papahānaumokuākea Marine National Monument Education Permit to Dr. Judith Lemus, University of Hawaii, Hawaii Institute of Marine Biology, for Access to State Waters to Document Fieldwork and Conduct Researcher Interviews

Permit Number: PMNM-2011-030

Project Description:

The education permit application, as described below, would allow entry and activities to occur in Papahānaumokuākea Marine National Monument (Monument), including the NWHI State waters from July 15, 2011 through October 31, 2011.

This project is aimed to develop the multimedia resources needed for a distance learning course offered to University of Hawai'i undergraduates. It would also provide needed visual media for existing outreach and education programs such as the marine exchange program Ecosystem Penpals, and updated photographs for important research reports and other related materials. The Applicant proposes to conduct interviews with research scientists during the course of their field work, and film (still photography and video) both the natural resources under study and the scientists conducting the studies. Additionally, the Applicant intends to link to several schools offering opportunities for direct interactions between students and scientists working in the Monument.

F-2c

The proposed activities are in direct support the Monument Management Plan's priority management needs through action plan 3.5.2 – Constituency Building and Outreach. The Constituency Building and Outreach Action Plan specifies to support efforts to broaden knowledge of and appreciation for Monument resources. Activities to support outreach, including “bringing the place to the people” through filmmaking and photography, as well as updating printed material such as those to be carried out by the permittee, are addressed in the Monument Management Plan Environmental Assessment. This EA summarizes that engaging Monument constituencies through integrated communications and interactive experiences could result in a beneficial effect on the Monument's natural resources (PMNM MMP Vol 2, p.170).

Consulted Parties:

The permit application was sent out for review and comment to the following scientific and cultural entities: Hawaii Division of Aquatic Resources, Hawaii Division of Forestry and Wildlife, Papahānaumokuākea Marine National Monument (NOAA/NOS), NOAA Pacific Islands Regional Office (NOAA-PIRO), United States Fish and Wildlife Service Hawaiian and Pacific Islands National Wildlife Refuge Complex Office, and the Office of Hawaiian Affairs (OHA). In addition, the permit application has been posted on the Monument Web site since March 10th, giving the public an opportunity to comment. The application was posted within 40 days of its receipt, in accordance with the Monument's Public Notification Policy.

Exemption Determination:

After reviewing HAR § 11-200-8, including the criteria used to determine significance under HAR § 11-200-12, DLNR has concluded that the activities under this permit would have minimal or no significant effect on the environment and that issuance of the permit is categorically exempt from the requirement to prepare an environmental assessment based on the following analysis:

1. All activities associated with this permit, including filming and photography, have been evaluated as a single action. As a preliminary matter, multiple or phased actions, such as when a group of actions are part of a larger undertaking, or when an individual project is precedent to or represents a commitment to a larger project, must be grouped together and evaluated as a single action. HAR § 11-200-7. This permit does not involve an activity that is precedent to a later planned activity.

2. The Exemption Class for Basic Data Collection with no Serious or Major Environmental Disturbance Appears to Apply. Chapter 343, HRS, and section 11-200-8, HAR, provide for a list of classes of actions exempt from environmental assessment requirements. HAR §11-200-8.A.5. specifically exempts the class of actions which involve “basic data collection, research, experimental management, and resource evaluation activities, which do not result in a serious or major disturbance to an environmental resource.” This exemption class has been interpreted to include photographing and recording activities, such as those being proposed.

The proposed filming and photography activities here appear to fall squarely under the exemption class #5, exempt item #4 as described under the former Fish and Game Division exemption list published in January 19, 1976. Filming and photography are considered data collection. As discussed below, no significant disturbance to any environmental resource is anticipated in either the filming or photographing of Monument resources. Thus, so long as the below considerations are met, an exemption class should include the action now contemplated.

3. Cumulative Impacts of Actions in the Same Place and Impacts with Respect to the Potentially Particularly Sensitive Environment Will Not be Significant. Even where a categorical exemption appears to include a proposed action, the action cannot be declared exempt if “the cumulative impact of planned successive actions in the same place, over time, is significant, or when an action that is normally insignificant in its impact on the environment may be significant in a particularly sensitive environment.” HAR § 11-200-8.B. To gauge whether a significant impact or effect is probable, an exempting agency must consider every phase of a proposed action, any expected primary and secondary consequences, the long-term and short-term effects of the action, the overall and cumulative effect of the action, and the sum effects of an action on the quality of the environment. HAR § 11-200-12. Examples of actions which commonly have a significant effect on the environment are listed under HAR § 11-200-12.

Since the designation of the Monument, five filming and photography projects have been undertaken to date in State waters. There were no deleterious effects from the previous projects. Permittees conducting these activities are always escorted while in the field and no collections are allowed. With this in mind, significant cumulative impacts are not anticipated as a result of this activity, and numerous safeguards further ensure that the potentially sensitive environment of the project area will not be significantly affected. All activities will be conducted in a manner compatible with the management direction of the Monument Proclamation in that the activities do not diminish monument resources, qualities, and ecological integrity, or have any indirect, secondary, cultural, or cumulative effects. The joint permit review process did not reveal any anticipated indirect or cumulative impacts, nor did it raise any cultural concerns, that would occur as a result of these activities.

The activities would be conducted from the NOAA Ship HI'IALAKAI (PMNM-2011-009) during its September cruise. The following table lists additional activities that are anticipated to take place on this cruise pending approval of permit applications.

Table 1. Concurrent Projects Aboard NOAA SHIP HI'IALAKAI

Permit	Purpose and Scope	Location
PMNM-2011-009 NOAA Ship HI'IALAKAI	The permit allows NOAA Ship HI'IALAKAI entry into PMNM. Personnel aboard the vessel will be permitted under separate permits.	All locations
PMNM-2011-018 Meyer (proposed)	The proposed action is to allow collection of reef fish and tagging of top predators as well as acoustic receiver deployment	All locations
PMNM-2011-019 Valenzuela (proposed)	The proposed action is to allow filming activities for use on public television stations	All locations
PMNM-2011-026 Rossiter (proposed)	The proposed action is to allow collection of live coral and fish.	All locations
PMNM-2011-038 Nakamoto (proposed)	The proposed action is to allow filming for Hawaii Skin Diver publications	All locations
PMNM-2011-42 Kosaki (proposed)	The proposed action is to allow collection of unidentifiable specimens located on deep reefs	All locations
PMNM-2011-025 Bowen (proposed)	The proposed action is to allow collection of specific reef fish, invertebrate and algal species	All locations
PMNM-2011-24 Gleason (proposed)	The proposed action is to survey and monitor maritime heritage sites	All locations

Two additional proposed activities, Nakamoto (PMNM-2011-038) and Valenzuela (PMNM-2011-019) include filming during this time span and needs to be considered when reviewing this proposed activity. The intended audience of these activities distinguish them from one another. This Applicant is intending to use the footage and film for students, specifically undergraduates through a distance learning and curriculum while Nakamoto's footage would be targeted towards free divers and ocean users, and Valenzuela's would be for public media. As such, there would be little to no overlap with the outcomes of these three activities. In addition, the diversity of these three filming projects would only serve to enhance efforts to reach broad audiences with information about the Monument and its resources.

The culmination of these permits, and their disparate activities, occurring throughout the Monument over a 4-week period, is not anticipated to have significant cumulative impacts. The NOAA Ship OSCAR ELTON SETTE (PMNM-2011-008) may also be in the Monument during this time frame facilitating needs of the monk seal camps under the management permit (PMNM-2011-001).

Since no significant cumulative impacts or significant impacts with respect to any particularly sensitive aspect of the project area are anticipated, the categorical exemptions identified above should remain applicable.

4. Overall Impacts will Probably be Minimal and Insignificant. Any foreseeable impacts from the proposed activity will probably be minimal, and further mitigated by general and specific conditions attached to the permit. Specifically, all research activities covered by this permit will be carried out with strict safeguards for the natural, historic, and cultural resources of the Monument as required by Presidential Proclamation 8031, other applicable law and agency policies and standard operating procedures.

Conclusion. Upon consideration of the permit to be approved by the Board of Land and Natural Resources, the potential effects of the above listed project as provided by Chapter 343, HRS and Chapter 11-200 HAR, have been determined to be of probable minimal or no significant effect on the environment and exempt from the preparation of an environmental assessment.

William J. Aila, Jr.
Board of Land and Natural Resources

Date